

In the Claims

Please amend the claims as follows:

1. (Currently amended) A mixture of conjugates, wherein each conjugate consists of comprising a calcitonin and a polyethylene glycol moiety, wherein the polyethylene glycol moiety is coupled to at least one oligomer through an amine function of the calcitonin, wherein the mixture is a monodispersed mixture, a substantially purely monodispersed mixture or a purely monodispersed mixture and the oligomer comprises a polyethylene glycol moiety.
2. (Original) The mixture according to claim 1, wherein the polyethylene glycol moiety has at least 2 polyethylene glycol subunits.
3. (Original) The mixture according to claim 1, wherein the conjugates have the capability of lowering serum calcium levels by at least 5 percent.
4. (Currently amended) The mixture according to claim 1, wherein the conjugates have an increased resistance to degradation by chymotrypsin or trypsin when compared to the resistance to degradation by chymotrypsin or trypsin of the calcitonin which is not coupled to the polyethylene glycol moiety oligomer.
5. (Original) The mixture according to claim 1, wherein the conjugates have a bioefficacy that is greater than the bioefficacy of the calcitonin which is not coupled to the oligomer.
6. (Currently amended) The mixture according to claim 1, wherein the calcitonin is covalently coupled to the polyethylene glycol moiety oligomer by a hydrolyzable bond, a non-hydrolyzable bond or both.
7. (Currently amended) The mixture according to claim 1, wherein the calcitonin is covalently coupled to the polyethylene glycol moiety of the oligomer.
8. (Cancelled)

9. (Currently amended) The mixture according to claim 1, wherein each the polyethylene glycol moiety ~~oligomer~~ has the same molecular structure.

10. (Cancelled)

11. (Original) The mixture according to claim 1, wherein the conjugates are each amphiphically balanced such that each conjugate is aqueously soluble to penetrate biological membranes.

12. (Original) A composition comprising:  
the mixture according to claim 1; and  
a pharmaceutically acceptable carrier.

13. (Original) A method of treating a bone disorder in a subject in need of such treatment, said method comprising administering an effective amount of a mixture of conjugates according to claim 1 to the subject to treat the bone disorder.

14. (Original) The method according to claim 13, wherein the bone disorder is osteoporosis Paget's disease, or hypercalcemia.

15. (Currently amended) A monodispersed mixture of conjugates, wherein each conjugate consists of comprises a calcitonin coupled to at least one polyethylene glycol moiety consisting of at least 4 polyethylene glycol subunits, an oligomer, wherein coupling between the calcitonin and the polyethylene glycol moiety consists of an amine bond(s), that comprises a polyethylene glycol moiety having at least 4 polyethylene glycol subunits, said mixture having a molecular weight distribution with a standard deviation of less than about 22 Daltons.

16. (Currently amended) A mixture of conjugates wherein each conjugate consists of comprising a calcitonin coupled to at least one polyethylene glycol moiety an oligomer, wherein coupling between the calcitonin and the polyethylene glycol moiety consists of an amine bond(s), that comprises a polyethylene glycol moiety, wherein the mixture has a dispersity coefficient (DC) greater than 10,000 where

$$DC = \frac{\left( \sum_{i=1}^n NiMi \right)^2}{\sum_{i=1}^n NiMi^2 \sum_{i=1}^n Ni - \left( \sum_{i=1}^n NiMi \right)^2}$$

wherein:

$n$  is the number of different molecules in the sample;

$N_i$  is the number of  $i^{\text{th}}$  molecules in the sample; and

$M_i$  is the mass of the  $i^{\text{th}}$  molecule.

17. (Original) The mixture of conjugates according to claim 16, wherein the dispersity coefficient is greater than 100,000.

18.-20. (Cancelled)